

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
QUALCOMM INCORPORATED)	WT Docket No. 05-7
)	
Petition For Declaratory Ruling)	
That OET-69 is Acceptable to)	
Demonstrate Compliance)	
With Section 27.60)	
)	

**COMMENTS
OF THE
700 MHZ ADVANCEMENT COALITION**

The 700 MHz Advancement Coalition hereby submits these Comments in support of the above-captioned Petition for Declaratory Ruling (“Petition”) filed by QUALCOMM Incorporated (“QUALCOMM”) on January 10, 2005.¹

The Coalition is an alliance consisting of most of the licensees and others interested in the deployment of new services in the 700 MHz Band.² The Coalition was created to promote public policies that will facilitate the rapid and effective delivery of new advanced wireless services in that Band. Consistent with that goal, the Coalition strongly supports grant of the QUALCOMM Petition.

I. INTRODUCTION

In its Petition, QUALCOMM asks the Commission to rule that the process found in the Office of Engineering & Technology Bulletin No. 69 (“OET-69”) is an acceptable method of

¹ See Public Notice DA 05-87, January 18, 2005.

² A current list of Coalition members is attached below. This list is also available at the Coalition’s website: www.700MHz.org.

demonstrating compliance with the TV/DTV interference protection criteria of Section 27.60 of the Federal Communications Commission (“FCC” or “Commission”) Rules. Section 27.60 establishes the interference protection criteria for 700 MHz licensees and TV/DTV licensees. In order to reduce the potential for interference to TV/DTV channels 51-68, 700 MHz licensees are required to operate only in accordance with Section 27.60.

Section 27.60(b)(1)(iii) permits a 700 MHz licensee to submit an engineering study to justify proposed locations for transmitters based on the parameters of the 700 MHz licensee and the TV/DTV station it is seeking to protect. The QUALCOMM Petition asks the Commission to establish that it is permissible to base that engineering study on OET-69, also known as the “Longley-Rice Methodology for Evaluating TV Coverage and Interference.” OET-69 is used to make predictions of radio field strength at specific geographic points based on the elevation profile of terrain between the transmitter and each specific reception point.³ As QUALCOMM notes, OET-69 is an “accurate, real-life protector against interference.”⁴ Its value in predicting interference is well-recognized by the broadcast community, which developed OET-69 in connection with evaluating the various DTV technical systems.⁵ It is currently used in connection with Part 73 interference analyses and can easily be modified to include signal to noise ratios required by Part 27.⁶

The QUALCOMM Petition also asks the Commission to apply the *de minimis* standard of 2% to studies submitted under Section 27.60 of the Rules. Under this standard, which is now used in the context of interference between broadcast stations, a station may make changes to its

³ See *Office of Engineering and Technology Releases Update of OET Bulletin No. 69*, Public Notice DA 04-319, February 6, 2004.

⁴ Petition at 10.

⁵ See Petition at 10.

⁶ Petition at 11.

transmitter so long as the change would not result in an increase in interference to more than 2% of another station's viewers, provided that no new interference may be caused to a station that already experiences interference to 10 percent or more of its viewing population, or that would result in a station's receiving interference in excess of 10 percent.

Finally, the QUALCOMM Petition asks that a streamlined processing procedure, including a rebuttable presumption, be applied to submissions under Section 27.60 (b) (1) (iii). That presumption would apply to OET-69 showings demonstrating that less than 2% of a station's service population would be affected.

II DISCUSSION

A. Grant of the Petition Will Serve the Public Interest

1. Early Deployment of New Services

The impetus for QUALCOMM's Petition is its development of a new nationwide "mediacast" network called MediaFLO, which will use QUALCOMM's 700 MHz licenses to deliver high quality video and audio to third generation mobile phones. A number of providers, other than QUALCOMM, are pursuing mobile video applications.⁷ Indeed, other members of the Coalition may be preparing to use their 700 MHz spectrum, which is very well-suited for mobile video applications and for innovative products like MediaFLO.⁸ Hence, the Coalition is interested in the QUALCOMM Petition both because it involves mobile video applications, but also more generally, because it will result in early deployment of 700 MHz services. The

⁷ The January 2005 issue of *Wireless Review* identifies the following companies as developers of mobile video applications: Sprint PCS and Cingular (Idetic's MobiTV), Texas Instruments (Hollywood), Nokia and Crown Castle (DVB-H). See http://wirelessreview.com/ai/wireless_big_opportunity_smallest/index.htm.

⁸ Coalition support for the QUALCOMM Petition stems from our belief that QUALCOMM need not be alone in benefiting from the clarity and certainty that grant of the Petition will bring. Other 700 MHz licensees, so long as they share similar technical characteristics and can make similar showings, can benefit from the use of OET-69, from streamlined procedures and the establishment of a 2% *de minimis* standard.

Coalition believes that a rapid nationwide deployment of innovative 700 MHz services by QUALCOMM will boost the profile of the 700 MHz band among equipment manufacturers, investors, and the general public. Promoting such growth and interest in the 700 MHz band promises to benefit all 700 MHz licensees, including state/local governments and public safety entities in the Upper 700 MHz Band, as well as entrepreneurs, small businesses and rural telephone companies in the Lower 700 MHz Band, by reducing equipment costs and encouraging a rapid transition to DTV. The Commission has recognized that the provision of innovative services in the 700 MHz band is in the public interest.⁹

Grant of the QUALCOMM Petition would also be consistent with the recommendations of the Commission's Wireless Broadband Access Task Force (the "Task Force"). In this regard, the Task Force has recommended that the Commission advance its efforts to make spectrum available for services in the 700 MHz band and find ways to allow these channels to be used for wireless broadband services prior to the completion of the DTV transition.¹⁰ The Task Force has also recommended that the Commission "consider clarifying or revising this interference criteria, and/or devising a streamlined process by which licensees can establish that their operations comply with the applicable interference criteria or only result in a *de minimis* impact on viewers."¹¹ As discussed below, grant of the QUALCOMM Petition would serve all of these interests by allowing QUALCOMM and similarly situated 700 MHz licensees to rapidly deploy advanced wireless facilities prior to the completion of the DTV transition, in areas where an engineering study based on OET-69 demonstrates that they can coexist with incumbent TV/DTV

⁹ See In the Matter of Aloha Partners, L.P. Request for Waiver of Section 27.60, *Memorandum Opinion and Order*, DA 05-460 (*rel.* February 18, 2005).

¹⁰ See Wireless Broadband Access Task Force Report, "Connected & On the Go: Broadband Goes Wireless" GN Docket No. 04-163 (*rel.* March 8, 2005) ("*Task Force Report*") at p. 62.

¹¹ *Id.* at p. 63.

operations, and where operation of these new facilities would result in only a *de minimis* impact on viewers.

The QUALCOMM Petition is designed to create clarity and certainty for 700 MHz licensees who wish to deploy their systems before the end of the DTV transition. At present, the 700 MHz Band is occupied by broadcasters who are in the process of preparing to move their operations out of the 700 MHz spectrum and into the “core spectrum.” The Commission has set out a timetable for the transition and has taken important steps toward setting a firm date for the transition to be accomplished. Nevertheless, most observers recognize that it will be some years before the 700 MHz Band is completely clear of broadcast operations.

Given this reality and understanding the strong desire that 700 MHz licensees have in beginning to deploy their networks and services, the QUALCOMM Petition represents a very desirable move toward coexistence. Deployment can begin if a licensee can show *de minimis* interference, using an OET-69 analysis, and benefiting from a streamlined processing procedure that gives the affected broadcaster opportunity to challenge the conclusions of the OET-69 analysis. Obviously, this will not work in all cases. Many 700 MHz licensees will be unable to make the requisite showings. But there will be some who can. QUALCOMM, with a nationwide license on Channel 55, has shown that, in at least three cities, it can locate its transmitters so as to avoid all but *de minimis* interference. The Coalition is hopeful that other 700 MHz licensees will be able to take advantage of the use of OET-69 to begin deployment before the end of the DTV transition.

The early deployment of MediaFLO and other services will bring mobile video applications, as well as other advanced wireless innovations, to a nationwide market of over 170 million consumers. Every current cell phone user is a potential customer of mobile video and

other services, which, like MediaFLO, are likely to be priced at “mass market” levels. Grant of the QUALCOMM Petition will reduce the cost of network deployment and will make the early availability of services at affordable rates more likely.

2. Reduced Administrative Burden

An additional benefit of the QUALCOMM proposal lies in its recognition of a need for streamlined processing of Section 27.60 requests. QUALCOMM’s proposal includes a shortened public notice period of 14 days and an automatic grant where no objection is received. The grant would apply to both a waiver request (when the 700 MHz transmitter is located inside the hypothetical Grade B contour of a broadcaster’s transmitter) and the “prior approval” requirement imposed on Section 27.60(b)(1)(iii) studies by the Wireless Communication Bureau in the *Access Spectrum Order*.¹²

QUALCOMM also proposed that a rebuttable presumption would apply when an objection is received to a study showing only *de minimis* interference. This presumption would favor approval of a study unless the objecting party could demonstrate special or unique factors which could overcome the presumption. (Obviously such factors would include an error in the engineering study.)

The Coalition supports this procedural approach. It will reduce the Commission’s administrative burden while furthering the Commission’s ultimate objectives, including hastening the transition to DTV without undue loss of broadcast service and increasing the attractiveness of the spectrum.¹³ Further, these procedures would apply to all licensees, not only to QUALCOMM.

¹² *Access Spectrum, LLC Request for Waiver of Section 27.60*, DA 04-2527, Released August 12, 2004.

¹³ See *Service Rules for the 746-764 and 776-794 MHz Bands and Revisions to Part 27 of the Commission’s Rules*, 15 FCC Rcd 20845 (2000), para 61. (*Upper 700 MHz MO&O*)

We recognize that some broadcast stations are likely to protest that this streamlined approach will make it very difficult to mount an offense against a filed OET-69 study showing *de minimis* interference. The Commission can mitigate some of these concerns by requiring that proponents of OET-69 studies serve the broadcast station affected. As a practical matter, though, we imagine that the 700 MHz licensee will have been in discussions with the affected station long before the filing of the engineering study.

In sum, these proposed procedures will reduce the Commission's administrative burden while protecting broadcast stations from all but *de minimis* interference. The Coalition supports their adoption.

B. Grant of the QUALCOMM Petition Will Cause No Significant Adverse Impact.

1. Temporary Measure

QUALCOMM makes an important point when it reminds the Commission that the requested declaratory ruling is strictly a temporary device to allow QUALCOMM and others to go on the air in some markets before the end of the DTV transition. Once the transition is over, broadcast stations will have moved to their DTV allotments in the core spectrum and they will cease broadcast operations in the 700 MHz spectrum. Thus, use of OET-69 and the *de minimis* protection standard will have only a temporary effect. With the progress that the FCC and others have made towards hastening the transition, we are confident that the length of time for use of OET-69 as an interference prediction measure in the 700 MHz will be short.

2. Number of Affected Persons

Also noteworthy is the small number of broadcast viewers who will be affected by the QUALCOMM proposal. First the number of possibly affected stations is small. As QUALCOMM explains, in most markets there will be no co-channel or adjacent channel

TV/DTV station, or the requirements of Section 27.60 will be met by the standard contour overlap approach to calculating interference. Only in a small subset of markets will the use of an OET-69 engineering study be required.

Further, the actual number of affected viewers in those markets is small because most viewers subscribe to cable or satellite service and will not be affected at all. For example, if a market consists of 100,000 viewers, it is not unreasonable to estimate that at most only 15% of 2% would be affected, assuming that 85% of viewers receive cable or satellite and only 15% receive their signal over the air.¹⁴ Thus, in a market of 100,000 people, less than 300 would be affected by some level of interference. As QUALCOMM suggests, the small number of viewers who might be affected, for a short time, must be balanced against the 170 million mobile phone users nationwide who will form the target market for mobile video services.

¹⁴ This estimate is consistent with the conclusions drawn by the Commission in its *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MM Docket No. 04-227, FCC 05-13, Released February 4, 2005. There the Commission cited Nielsen Media Research for the statement that only “14.75 percent of U.S. households rely exclusively on over-the-air television for video programming.” *Id.* at para 81, n. 408.

III. CONCLUSION

For these reasons, the 700 MHz Advancement Coalition supports the Petition for Declaratory Ruling submitted by QUALCOMM Incorporated and urges its immediate adoption.

Respectfully submitted,

700 MHz ADVANCEMENT COALITION

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Arris International	Nemont Communications
Cavalier Group	Nortel Networks
Chequamegon Communications Cooperative	NTCA
Chibardun Telephone Cooperative	Panhandle Telecommunication Systems
Citizens Telephone Cooperative	Peoples Wireless
City of Ketchikan (Db a Ketchikan Public Utilities)	Pioneer Communications
Corr Wireless Communications	Polar Communications
Craw-Kan Telephone Coop.	The Ponderosa Telephone Co.
D&E Communications	PVT Networks
DataCom Wireless	QUALCOMM Incorporated
Dickey Rural Services	Rainbow Telephone Cooperative Assn.
Dycom Holding	Red River Rural Tel. Assn.
EADS Telecom	Redwood County Telephone
East Kentucky Network (Appalachian Wireless)	Ronan Telephone Co
First Cellular of Southern Illinois	South Missouri 700 Consortium
First Keystone Telecoms Group	Southern Iowa 700, LLC
Flarion Technologies	Swayzee Telephone
FTC Inc.	TCA, Inc.
Glenwood Telephone Membership Corp (GTMC)	Triangle Communication System
Great Lakes of Iowa (CellularOne)	Tri-County Telephone Association
Great Plains Communications	Union Telephone
GTC Wireless	United Telecom
Guadalupe Valley Communications Systems	Vantage Point Solutions
GVNW Consulting	Vermont Telephone Company
H&B Communications	Vulcan Capital
Harbor Wireless	Waller, Inc.
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